

IN THE CLAIMS:

1. (Currently Amended) A modem for interconnecting a DSL line and a local bus, said local bus comprising a first and a second data transfer mode, which modem comprises a DSL interface adapted to send and receive data on the DSL line at a DSL bandwidth selected from a first set of bandwidths, and a local bus interface, wherein the local bus interface is adapted to operate at a local bus bandwidth selected from a second set of bandwidths so as to match the DSL bandwidth, and is adapted to select the first data transfer mode if said local bus bandwidth is below a specified nonzero threshold even if said second data transfer mode could be used with said local bus bandwidth, to select the second first data transfer mode if said local bus bandwidth is above said threshold[,] and if said second data transfer mode cannot be used with said local bus bandwidth.

2. (Previously presented) The modem according to claim 1, wherein each set is formed of a plurality of discrete predefined bandwidth amounts.

3. (Previously presented) The modem according to claim 2, wherein the local bus bandwidth that matches the DSL bandwidth is the lowest bandwidth from said second set that has a payload data rate at least equal to that of the DSL bandwidth.

4. (Previously presented) The modem according to claim 1, wherein the local bus interface is a USB interface.

5. (Previously presented) The modem according to claim 4, wherein the USB interface is adapted to operate in bulk transfer mode if the DSL bandwidth is below a predefined non-zero threshold and in isochronous transfer mode if the DSL bandwidth is above said threshold.

6. (Previously presented) The modem according to claim 1, wherein it comprises storage means for storing data representative of at least one of a local bus bandwidth amount and a DSL bandwidth amount assigned to a service accessible by said DSL line.

7. (Previously presented) A method for establishing a data transfer mode for a modem interconnecting a DSL line and a local bus, said local bus comprising a first and a second data transfer mode, comprising the steps of

- a) selecting at least one of a desired DSL bandwidth and a desired local bus bandwidth from first and second sets of bandwidths according to a desired type of service to be accessed via said DSL line,
- b) attempting to reserve the desired local bus bandwidth on the local bus,
- c) if said local bus bandwidth is below a specified nonzero threshold, selecting the first data transfer mode even if said second data transfer mode could be used with said local bus bandwidth; if said local bus bandwidth is above said threshold and said second data transfer mode can be used with said local bus bandwidth, selecting the second data transfer mode; and, if said local bus bandwidth is above said threshold and said second data transfer mode cannot be used with said local bus bandwidth, selecting the first data transfer mode,
- d) attempting to synchronize the DSL line to the desired DSL bandwidth, and
- e) when the attempts have succeeded, transferring data between the DSL line and the local bus.

8. (Original) The method of claim 7, wherein each set is formed of a plurality of discrete predefined bandwidth amounts.

9. (Previously presented) The method of claim 8, comprising the step of selecting one of the desired bandwidths based on the other bandwidth such that the desired local bus bandwidth is the lowest bandwidth from said second set that has a payload data rate at least equal to that of the desired DSL bandwidth.

Claims 10-19: (Cancelled)

20. (Previously Presented) The method of claim 7, wherein at least one of the desired bus bandwidths is selected based on a specified bandwidth amount for the desired service stored at the modem.

21. (Cancelled)

22. (Previously presented) The method of claim 7, wherein if the second data transfer mode is selected and if step d) fails, a lower desired local bus bandwidth is selected from the second set, and step d) is repeated.

23. (Previously presented) The method of claim 22, wherein if step d) fails and no lower desired local bus bandwidth can be selected from the second set, the first data transfer mode is selected for the local bus.

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Previously presented) A method for establishing a data transfer mode for a modem interconnecting a DSL line and a local bus, said local bus comprising a first and a second data transfer mode, comprising the steps of

- a) selecting the first data transfer mode, said selection of the first data transfer mode being independent of the local bus bandwidth,
- b) selecting at least one of a desired DSL bandwidth and a desired local bus bandwidth from first and second sets of bandwidths according to a desired type of service to be accessed via said DSL line,
- c) attempting to reserve the desired local bus bandwidth on the local bus,

- d) attempting to synchronize the DSL line to the desired DSL bandwidth, and
- e) when the attempts have succeeded, transferring data between the DSL line and the local bus.

31. (Previously presented) The method of claim 30, wherein, if said transfer has succeeded and if said local bus bandwidth is above a specified nonzero threshold, selecting the second data transfer mode.

32. (Previously presented) The method of claim 30, wherein, if said local bus bandwidth is not granted, selecting the first data transfer mode.

33. (Previously presented) The method according to claim 30, wherein said local bus is an USB bus, said first data transfer mode is a Bulk transfer mode and said second data transfer mode is an Isochronous transfer mode.

34. (Previously presented) The method according to claim 7, wherein said local bus is an USB bus, said first data transfer mode is a Bulk transfer mode and said second data transfer mode is an Isochronous transfer mode.